

Amendment

Please amend the above-identified patent application as follows:

In the Claims:

Please amend the claims as follows. The following listing replaces all prior versions and listings of claims in the application:

Claim Listing:

1 1. (currently amended) A system for adjusting a trim device associated with a control
2 surface in an aircraft, said aircraft having a primary control system; said system for
3 adjusting the trim device comprising:

4 a control servo mechanically coupled to said primary control system through
5 a coupling ~~device~~ link; said coupling link comprising a push pull rod disposed between
6 said control servo and said primary control, through said push pull rod said control servo
7 is operatively coupled to said primary control system;

8 a first trim sensor within said coupling ~~device~~ link, said first trim sensor
9 producing a first trim signal responsive to a control force transmitted through said
10 coupling ~~device~~ link;

11 a trim servo responsive to said first trim signal for adjusting said trim device
12 in accordance with said first trim signal.

1 2 - 4. (canceled)

1 5. (currently amended) A system as in ~~claim 2~~ claim 1, wherein said first trim sensor
2 comprises:

3 a flexible portion having a flexing response to said control force;

4 a flexing response sensor producing said first trim signal responsive to said
5 flexing response of said flexible portion;

6 wherein the flexing of said flexible portion acts on a member mechanically
7 connected to said flexible portion to produce a rotational motion in said member in
8 response to said control force, and said flexing response sensor coupled to said member.

6-8 (canceled)

1 9. (withdrawn) A system as in claim 5, wherein the flexing response sensor includes two
2 optical sensors spaced apart to generate a response dead zone.

1 10. (withdrawn) A system as in claim 5, wherein the flexing response sensor includes a
2 switch.

1 11. (withdrawn) A system as in ~~claim 2~~ claim 1, wherein said first trim sensor includes a
2 switch.

1 12. (currently amended) A system as in ~~claim 2~~ claim 1, wherein said first trim signal
2 includes a response portion that is proportional to said control force.

1 13. (withdrawn) A system as in ~~claim 2~~ claim 1, wherein said first trim signal includes a
2 response portion having hysteresis.

1 14. (withdrawn) A system as in ~~claim 2~~ claim 1, wherein said first trim signal includes a
2 response portion having a dead zone.

1 15. (currently amended) A system as in ~~claim 2~~ claim 1, wherein said link is coupled to a
2 primary control cable.

1 16. (previously presented) A system as in claim 15, wherein said link is coupled through
2 a cable attaching device comprising a bar.

1 17. (previously presented) A system as in claim 1, further including a second trim sensor,
2 said second trim sensor producing a second trim signal; said trim servo being responsive
3 to said second trim signal; wherein said first trim sensor and said second trim sensor are
4 separate and independent.

1 18. (previously presented) A system as in claim 17, wherein said trim servo adjusts said
2 trim device only when said first trim sensor and said second trim sensor agree in
3 direction.

1 19. (withdrawn) A system as in claim 17, wherein said second trim sensor is included in
2 said coupling device.

1 20. (previously presented) A system as in claim 17, wherein said second trim sensor is
2 included in said control servo.

1 21. (withdrawn) A system as in claim 20, wherein said second trim sensor is an
2 electronic sensor.

1 22. (previously presented) A system as in claim 17, wherein said second trim sensor is an
2 electromechanical sensor.

1 23. (withdrawn) A system as in claim 17, wherein one of said first trim sensor or said
2 second trim sensor provides direction information.

1 24. (withdrawn) A system as in claim 23, wherein one of said first trim sensor or said
2 second trim sensor includes a switch.

1 25. (previously presented) A system as in claim 1, including a first trim controller; said
2 first trim controller responsive to said first trim sensor, and said trim servo responsive to
3 said first trim controller.

1 26. (currently amended) A system as in claim 25, wherein said first trim controller
2 provides a pulsed output to drive said trim servo; said pulsed output having a variable
3 duty cycle that yields an average output drive proportional to said first trim signal.

1 27. (currently amended) A system as in claim 25, wherein said first trim controller is
2 responsive only to the polarity of said first trim signal.

1 28. (withdrawn) A system as in claim 25, wherein said first trim controller includes a
2 hysteresis response to said first trim signal.

1 29. (withdrawn) A system as in claim 25, wherein said first trim controller includes a
2 dead zone response to said first trim signal.

1 30. (previously presented) A system as in claim 25, wherein said first trim controller
2 provides an output proportional to said first trim signal.

1 31. (previously presented) A system as in claim 30, wherein said first trim controller
2 output is a pulsed output having a variable duty cycle wherein the variable duty cycle is
3 proportional to said first trim signal.

1 32. (withdrawn) A system as in claim 25, further including a signal from an autopilot
2 wherein said first trim controller adjusts the trim device only when said autopilot signal is
3 present.

33 – 34 (Canceled)

1 35. (new) A system for adjusting a trim device associated with a control surface in an
2 aircraft, said aircraft having a primary control system; said system for adjusting the trim
3 device comprising:
4 a control servo coupled to said primary control system through a coupling
5 device, said coupling device comprising a link;

6 a first trim sensor within said coupling device, said first trim sensor
7 producing a first trim signal responsive to a control force transmitted through said
8 coupling device;
9 a flexible portion having a flexing response to said control force;
10 a flexing response sensor producing said first trim signal responsive to said
11 flexing response of said flexible portion;
12 a portion disposed transverse to the force transmitted through said coupling
13 device, said transverse portion coupled to said flexible portion and responsive to said
14 flexing response, and said flexing response sensor coupled to said transverse portion;
15 a trim servo responsive to said first trim signal for adjusting said trim device
16 in accordance with said first trim signal.

1 36. (new) A system for adjusting a trim device associated with a control surface in an
2 aircraft, said aircraft having a primary control system; said system for adjusting the trim
3 device comprising:

4 a control servo coupled to said primary control system through a coupling
5 device;

6 a first trim sensor within said coupling device, said first trim sensor
7 producing a first trim signal responsive to a control force transmitted through said
8 coupling device;

9 said first trim sensor further comprising:

10 a flexible portion having a flexing response to said control force;
11 a flexing response sensor producing said first trim signal responsive to said
12 flexing response of said flexible portion; said flexing response sensor comprising at least
13 one optical sensor;

14 a trim servo responsive to said first trim signal for adjusting said trim device
15 in accordance with said first trim signal.

1 37. (new) A system for adjusting a trim device associated with a control surface in an
2 aircraft, said aircraft having a primary control system; said system for adjusting the trim
3 device comprising:
4 a control servo coupled to said primary control system through a coupling
5 device;
6 a first trim sensor within said coupling device, said first trim sensor
7 producing a first trim signal responsive to a control force transmitted through said
8 coupling device;
9 a second trim sensor included in said control servo, said second trim sensor
10 producing a second trim signal; said trim servo being responsive to said second trim
11 signal; wherein said first trim sensor and said second trim sensor are separate and
12 independent.
13 a trim servo responsive to said first trim signal for adjusting said trim device
14 in accordance with said first trim signal.